



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/706,255

11/12/2003

Ondrej Hendl

PC027453

6868

25533 7590 10/09/2008
PHARMACIA & UPJOHN
7000 Portage Road
KZO-300-104
KALAMAZOO, MI 49001

EXAMINER

TELLER, ROY R

ART UNIT

PAPER NUMBER

1654

MAIL DATE

DELIVERY MODE

10/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/706,255	Applicant(s) HENDL ET AL.	
	Examiner ROY TELLER	Art Unit 1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 12, 13, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 12-13, 16-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1654

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/28/08 has been entered.

Claim 1 has been amended. Claims 9-11 and 14-15 remain withdrawn as being drawn to a non-elected invention.

Claims 1-8, 12-13 and 16-17 are under examination.

Response to Amendments/ Arguments

Applicant's arguments and amendments filed 8/28/08 are acknowledged and have been fully considered. Any rejection and/or objection not specifically addressed is herein withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1654

Claims 1-8, 12-13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn (USPN 5,721,359) in view of Foster (USPN 5,736,151).

The claimed invention is drawn to a composition comprising a bioactive pharmaceutical or specifically, crystalline ceftiofur free acid (CCFA) and one or more modified oils selected from corn oil, peanut oil, sesame oil, olive oil, palm oil, safflower oil, soybean oil, cottonseed oil, rapeseed oil, sunflower oil, or coconut oil as the liquid carrier. "Modified" is understood to mean a vehicle which, through physical, chemical or mechanical means, has been altered as compared to its natural (or "non-modified" in the case of synthetic liquid carriers) form such that the modified vehicle has an increased level of oxidation products. Modification is accomplished by heat or irradiation, among other means. The composition is administered to a host, wherein the concentration of crystalline ceftiofur free acid ranges from about 50 mg/ml to about 250 mg/ml, and the composition is released to the host on a predictable sustained basis.

Dunn teaches crystalline ceftiofur free acid as the cephalosporin antibiotic ceftiofur, see abstract and claim 1, column 17. Dunn discloses a composition with a pharmaceutically acceptable carrier, see claim 8, column 19. Dunn teaches that the composition is sustained-release, see claim 9, column 19. Dunn discloses the composition as comprising from about 20 to 200 mg/ml of crystalline ceftiofur free acid, see claim 10, column 19. Dunn teaches the composition is nonaqueous, where the nonaqueous composition is an oil, selected from the group consisting of corn oil, peanut oil, sesame oil, olive oil, palm oil, safflower oil, soybean oil, cottonseed oil, rapeseed oil, sunflower oil and mixtures thereof, see claims 12, 13, and 14, column

Art Unit: 1654

19. Dunn teaches modifying the oil carrier by heat or irradiation in order to render it sterile, see column 8, lines 42-50.

Dunn teaches a pharmaceutical composition comprising crystalline ceftiofur free acid and a modified carrier as set forth *supra*. Dunn does not teach the use of coconut oil as in the claimed invention.

Foster teaches a composition where the drug is a cephalosporin, see claim 16, column 14. Foster discloses oil used in the composition as selected from the group consisting of canola oil, corn oil, cottonseed oil, olive oil, peanut oil, sesame oil, soybean oil, safflower oil, coconut oil, sunflower oil and palm oil, see claim 19, column 14. Foster teaches a volume of 90% heated cottonseed oil used in the preparation of the composition, see column 10, lines 26-28. Foster discloses the present invention provides for novel formulations, such as oil suspensions, see column 1, lines 6-7.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have used the coconut oil of Foster in the composition of Dunn as the equivalent of one or more of the vegetable oils disclosed by Dunn. While Foster does not specifically teach an amount of cottonseed oil with coconut oil in the composition, absent some evidence to the contrary, the claimed ratios of oil constitute routine optimization of a known composition.

Applicant's arguments were carefully considered but were not found persuasive. Applicant contends that ethylene oxide sterilization is not desirable in a pharmaceutical product. The examiner agrees with this statement, however, the

Art Unit: 1654

examiner contends that the Dunn reference discloses heat as a method of sterilization.

This method of sterilization would be a method of modifying the carrier. See, for example, column 8, lines 42-50. Applicant contends that the solid preparation is a dry, solid preparation. However, the examiner contends that Dunn discloses liquid preparations in suitable liquid vehicles. See, for example, column 8, lines 14-20

Applicant contends that the compositions of Dunn do not provide sustained release performance of the composition in the same sense as the compositions of the instant invention. However, the examiner contends that Dunn teaches that the composition is sustained release. See, for example, claim 9, column 19.

Conclusion

All claims are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy Teller whose telephone number is 571-272-0971. The examiner can normally be reached on Monday-Friday from 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang, can be reached on 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1654

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RT

/Christopher R. Tate/
Primary Examiner, Art Unit 1655